

Title (en)  
CONTRAST AGENT ATTENUATION GRADIENT

Title (de)  
KONTRASTMITTEL-ABSCHWÄCHUNGSGRADIENT

Title (fr)  
GRADIENT D'ATTÉNUATION D'AGENT DE CONTRASTE

Publication  
**EP 4252664 A1 20231004 (EN)**

Application  
**EP 22166012 A 20220331**

Priority  
EP 22166012 A 20220331

Abstract (en)  
A computer-implemented method of calculating a value of a contrast agent attenuation gradient for a lumen in a vasculature, is provided. The method includes: analyzing spectral CT data to isolate from the spectral CT data, contrast agent attenuation data representing the distribution of the contrast agent along the lumen; and calculating, from the contrast agent attenuation data, a value of a gradient of the contrast agent along one or more portions ( $P_{a-d}$ ) of the lumen, to provide the value of the contrast agent attenuation gradient.

IPC 8 full level  
**A61B 6/03** (2006.01); **A61B 6/00** (2006.01)

CPC (source: EP)  
**A61B 6/032** (2013.01); **A61B 6/481** (2013.01); **A61B 6/482** (2013.01); **A61B 6/504** (2013.01); **A61B 6/5217** (2013.01)

Citation (applicant)  

- WO 2007034359 A2 20070329 - PHILIPS INTELLECTUAL PROPERTY [DE], et al
- WONG, D. T. L ET AL.: "Transluminal Attenuation Gradient in Coronary Computed Tomography Angiography Is a Novel Noninvasive Approach to the Identification of Functionally Significant Coronary Artery Stenosis: A Comparison With Fractional Flow Reserve", JACC, vol. 61, no. 12, 2013, pages 1271 - 1279
- BRENDDEL, B. ET AL.: "Empirical, projection-based basis-component decomposition method", MEDICAL IMAGING, 2009
- PROC. OF SPIE, vol. 7258
- ROESSL, EPROKSA, R.: "K-edge imaging in X-ray computed tomography using multi-bin photon counting detectors", PHYS MED BIOL, vol. 52, no. 15, 7 August 2007 (2007-08-07), pages 4679 - 96, XP020113001, DOI: 10.1088/0031-9155/52/15/020
- SILVA, A. C. ET AL.: "Dual-energy (spectral) CT: applications in abdominal imaging", RADIOGRAPHICS, vol. 31, no. 4, 2011, pages 1031 - 1046

Citation (search report)  

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- [A] US 2014243662 A1 20140828 - MITTAL RAJAT [US], et al
- [A] US 2014088414 A1 20140327 - MITTAL RAJAT [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
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